



- NOTES**
1. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL.
 2. COORDINATES ARE BASED ON UTM.
 3. LOCATION OF AIR VALVES, WASHOUTS, BENDS AND OTHER FITTINGS AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
 4. GROUND AND INVERT LEVEL SHOWN ARE AS SHOWN ON DRAWING UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
 5. PIPES ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE.
 6. ALL BENDS ARE HORIZONTAL UNLESS OTHERWISE STATED.
 7. IN WATER LOGGED AREAS, PIPES TO BE BEDDED WITH SINGLE SIZED OR GRADED AGGREGATES AS PER CLAUSE 430.1 AND 216 OF TECHNICAL SPECIFICATIONS AND/OR ANCHOR BLOCKS AS MAY BE DIRECTED ON SITE BY THE ENGINEER.

- LEGEND:**
- PROPOSED PIPELINE
 - EXISTING GROUND PROFILE
 - PIPE INVERT PROFILE
 - EXISTING ROAD
 - AIR VALVE
 - DAV — DOUBLE AIR VALVE
 - WASHOUT
 - WO1 — WASHOUT TYPE 1
 - WO2 — WASHOUT TYPE 2
 - DN — NOMINAL DIAMETER
 - PN — NOMINAL PRESSURE
 - VB — VERTICAL BEND
 - HB — HORIZONTAL BEND
 - EXISTING STRUCTURE
 - ER — EARTH ROAD
 - GR — GRAVEL ROAD
 - CUT



CHAINAGE (m)	EXISTING GROUND LEVEL (m)	INVERT LEVELS (m)	H.G.L. (m)	DATUM (m)	TYPE OF PIPE AND SIZE	REMARKS
3+680.0	1728.23	1728.7	1728.68	1728.23	PN 10 280MM HDPE PIPE	
3+700.0	1728.8	1729.3	1728.83	1728.31	PN 10 280MM HDPE PIPE	
3+720.0	1729.9	1730.4	1729.98	1729.38	PN 10 280MM HDPE PIPE	
3+740.0	1730.7	1731.2	1730.72	1729.24	PN 10 280MM HDPE PIPE	
3+760.0	1731.4	1732.0	1731.46	1729.84	PN 10 280MM HDPE PIPE	
3+780.0	1731.9	1732.5	1731.94	1730.44	PN 10 280MM HDPE PIPE	
3+800.0	1732.1	1732.7	1732.11	1730.57	PN 10 280MM HDPE PIPE	
3+820.0	1732.6	1733.1	1732.62	1731.06	PN 10 280MM HDPE PIPE	
3+840.0	1733.4	1733.9	1733.46	1731.93	PN 10 280MM HDPE PIPE	
3+860.0	1732.1	1732.6	1732.11	1730.61	PN 10 280MM HDPE PIPE	
3+880.0	1733.7	1734.2	1733.71	1732.17	PN 10 280MM HDPE PIPE	
3+900.0	1733.5	1734.0	1733.58	1732.00	PN 10 280MM HDPE PIPE	
3+920.0	1733.3	1733.8	1733.33	1731.84	PN 10 280MM HDPE PIPE	
3+940.0	1732.4	1732.9	1732.44	1730.66	PN 10 280MM HDPE PIPE	
3+960.0	1731.8	1732.3	1731.88	1730.33	PN 10 280MM HDPE PIPE	
3+980.0	1730.4	1730.9	1730.46	1728.88	PN 10 280MM HDPE PIPE	
4+000.0	1728.6	1729.1	1728.61	1728.14	PN 10 280MM HDPE PIPE	
4+020.0	1728.9	1729.4	1728.91	1727.38	PN 10 280MM HDPE PIPE	
4+040.0	1727.6	1728.1	1727.65	1726.06	PN 10 280MM HDPE PIPE	
4+060.0	1726.1	1726.6	1726.16	1724.55	PN 10 280MM HDPE PIPE	
4+080.0	1724.5	1725.0	1724.54	1723.03	PN 10 280MM HDPE PIPE	
4+100.0	1723.0	1723.5	1723.04	1721.54	PN 10 280MM HDPE PIPE	
4+120.0	1721.9	1722.4	1721.94	1720.37	PN 10 280MM HDPE PIPE	
4+140.0	1720.2	1718.6	1720.27	1718.66	PN 10 280MM HDPE PIPE	
4+160.0	1719.1	1717.5	1719.13	1717.57	PN 10 280MM HDPE PIPE	
4+180.0	1717.7	1716.3	1717.72	1716.23	PN 10 280MM HDPE PIPE	
4+200.0	1716.8	1715.5	1716.82	1715.32	PN 10 280MM HDPE PIPE	
4+220.0	1716.1	1714.6	1716.14	1714.57	PN 10 280MM HDPE PIPE	
4+240.0	1715.2	1713.7	1715.28	1713.73	PN 10 280MM HDPE PIPE	
4+260.0	1714.6	1713.0	1714.62	1713.06	PN 10 280MM HDPE PIPE	
4+280.0	1714.0	1712.4	1714.07	1712.48	PN 10 280MM HDPE PIPE	
4+300.0	1713.5	1711.8	1713.52	1711.96	PN 10 280MM HDPE PIPE	
4+320.0	1713.0	1711.3	1713.07	1711.46	PN 10 280MM HDPE PIPE	
4+340.0	1712.2	1710.6	1712.22	1710.66	PN 10 280MM HDPE PIPE	
4+360.0	1710.8	1709.8	1710.82	1709.27	PN 10 280MM HDPE PIPE	
4+380.0	1709.2	1708.2	1709.27	1707.67	PN 10 280MM HDPE PIPE	
4+400.0	1707.9	1707.0	1707.92	1706.31	PN 10 280MM HDPE PIPE	
4+420.0	1706.2	1705.4	1706.27	1705.74	PN 10 280MM HDPE PIPE	
4+440.0	1704.9	1704.3	1704.92	1703.43	PN 10 280MM HDPE PIPE	
4+460.0	1704.2	1703.7	1704.27	1702.72	PN 10 280MM HDPE PIPE	
4+480.0	1703.7	1703.1	1703.72	1702.23	PN 10 280MM HDPE PIPE	
4+500.0	1703.3	1702.7	1703.37	1701.77	PN 10 280MM HDPE PIPE	
4+520.0	1703.0	1702.4	1703.02	1701.46	PN 10 280MM HDPE PIPE	
4+540.0	1702.8	1702.1	1702.87	1701.30	PN 10 280MM HDPE PIPE	
4+560.0	1702.4	1701.8	1702.42	1700.94	PN 10 280MM HDPE PIPE	
4+580.0	1702.0	1701.4	1702.07	1700.48	PN 10 280MM HDPE PIPE	

FOR CONSTRUCTION

REV	REVISIONS	SIGN	DATE	APPROVED
	BY			
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CLIENT
TANA WATER WORKS DEVELOPMENT AGENCY
 P. O. BOX 1292-10100
 NYERI

PROJECT
NGARIAMA NJUKIINI WATER PROJECT

Civil/Structural Engineers
TANA WATER WORKS DEVELOPMENT AGENCY
 P. O. BOX 1292-10100
 NYERI

Drawing Title
NGARIAMA NJUKIINI WATER PROJECT
RAW WATER GRAVITY MAIN
PLAN AND PROFILE (SHEET 5 OF 7)

Designed by DWN	Drawn by EWN
Checked by JMM	Approved by
Scale AS SHOWN (A1)	Date MAY, 2022
Job No. 1	ACAD File:

C STATUS DRAWING No.TWWD/ANNWP/RW-05 CO REV